

Date: Wed, 20 Jul 94 04:30:39 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #202
To: Ham-Homebrew

Ham-Homebrew Digest Wed, 20 Jul 94 Volume 94 : Issue 202

Today's Topics:

 Dummy Load Oil
 ISD2590 chip - where to get one
 Re Johanson caps
 reply to noise temp to NF conversion
 Rolling my own Transformer (2 msgs)
 VHF/UHF Coax switches

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 19 Jul 1994 17:06:28 GMT
From: ihnp4.ucsd.edu!sdd.hp.com!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: Dummy Load Oil
To: ham-homebrew@ucsd.edu

Muenzler, Kevin (MUENZLERK@uthscsa.EDU) wrote:

: In digest 199, Ken (N6MHG) writes:
: >What sort of oil is used in the paint can variety of dummy load? I've seen
: an
: >article that said mineral oil would work pretty well but was prohibitively
: >expensive. While at Wal-mart the other night I checked the prices of their
: >mineral oil. \$1.62 per 16oz. bottle. That doesn't seem to be
: prohibitively
: >expensive to me at about \$13 for a full gallon. Am I missing something?

: Yes, mineral oil is a little expensive and is probably the
: safest to use in a dummy load. Don't try anything like motor

: oil, it has many different types of lubricants that have
: different volatility. The 'best' type of oil is "turbine oil."
: You can get it at many farm and ranch supply stores. One of the
: easiest to find is sold by TEXACO distributors, Regal Oil R&O Number
: 46. You can usually find it in 5 gallon cans sold as "turbine oil."
: I don't know how easy it will be for you to find where you are. Just
: go out to one of the small towns in your area.

Transformer oil is pretty much designed for service like this. Many
transformer rebuild shops will fill up your pail for you for a nominal
charge, and there are transformer rebuild shops in most cities.

73, K7ITM

Date: 19 Jul 1994 19:36:06 GMT
From: nothing.ucsd.edu!brian@network.ucsd.edu
Subject: ISD2590 chip - where to get one
To: ham-homebrew@ucsd.edu

The ISD2590 chip from Information Storage Devices is a nifty little chip
for a project I'm working on, but I can't seem to find one.

JAMECO lists it in their catalog, and accepted an order for one, but
then advised that it would not ship for SIX MONTHS and cancelled the
order. None of the other low-volume part vendors seem to have it
available.

Anyone know of any sources for this chip? It'll probably be around \$40.
I only need one.
- Brian

Date: Mon, 18 Jul 94 22:00:05 EDT
From: anagld!wb3ffv!hambbs!Mike.Czuhajewski@uunet.uu.net
Subject: Re Johanson caps
To: ham-homebrew@ucsd.edu

Try the hamfests. I live in the Washington DC/Baltimore metro area,
with many hamfests throughout the year and the larger ones usually have
at least one dealer who sells them. The going price is usually in the
\$2 range, and they usually have large bins of them, apparently in
unused condition. Hint--check the dealers who traffic in used
microwave goodies; they would probably be the most likely ones to have
them. (For the last two or so years now, there has also been one

rather large surplus dealer at the local hamfests who sells SBL-1 DBMs by Mini Circuits Labs at 2 for \$5; most are unused, some are unsoldered, all have tested good. I'm not at liberty to say how many I bought since my wife might see a printout of this, but we'll just leave it at "dozens"!) 73 de WA8MCQ

Date: 19 Jul 94 16:55:05 GMT
From: news-mail-gateway@ucsd.edu
Subject: reply to noise temp to NF conversion
To: ham-homebrew@ucsd.edu

To Paul Breed:

The conversion from NF to temperature and vice versa is on page 12-2 of 1988 and 1985 ARRL handbook (and presumably newer versions):

$T_e = 290[\text{antilog}(NF/10)]$ in degrees Kelvin

$NF = 10 \log(1+(T_e/290))$ where T_e is degrees Kelvin

Date: Tue, 19 Jul 1994 13:06:16 GMT
From: ihnp4.ucsd.edu!sdd.hp.com!apollo.hp.com!hpwin055.uksr!hpmoea!dstock@network.ucsd.edu
Subject: Rolling my own Transformer
To: ham-homebrew@ucsd.edu

It's much easier than you might think.

Find a scrap toroidal transformer with the primary voltages and overall power rating you want.

Usually the secondary windings are on top and can be carefully unwound without disturbing the high voltage winding or its safety insulation. If you measured the secondary voltage and counted its turns, you will know the recipe for creating your new secondary.

If you want two separate, identical secondaries, wind them together with doubled wire to get matched wire lengths and so matched resistances.

No messing with laminations, no problems restacking. A bit fiddly to wind, though.

Score A++ for amateur spirit!

David GM4ZNX

Date: 19 JUL 94 10:16:35
From: pa.dec.com!mrnews.mro.dec.com!est.enet.dec.com!randolph@decwrl.dec.com
Subject: Rolling my own Transformer
To: ham-homebrew@ucsd.edu

In article <1994Jul17.035623.1@vax.sonoma.edu>, harrisok@vax.sonoma.edu writes...
>Could someone point me the right direction to finding information about
>"rolling my own" power transformer?

If you have a lot of time on your hands, go for it. I found a junk transformer at a flea market and decided to try to re-wind it for my own needs. I'm still working on it...

First problem is getting it apart. Mine was potted (soaked in varnish), so just unwinding the windings was out. I had to disassemble the core by unbolting it and tapping a knife blade in between the laminations, one at a time.

Next, start unwinding. Mine had several windings of various voltages, all about 1 amp output. The potted wire gets trashed by the unwinding process, so plan to buy new wire - Amidon has large gauge "enameled" wire. You count turns as you unwind. You will, of course, have measured each winding for it's output voltage before you started any of this. From the number of turns you get volts/turn for the transformer.

If you're lucky, your transformer will have the primary winding at the inside, so you're all set once you get the secondary off. Figure out how many turns you want, and start in. This is where I left off - you have to anchor the windings somehow or they'll start to turn into a tangled mess once you get going. I didn't realize that, so now I'll probably have to unwind it and re-do it. You wind in layers, seperating each layer with a wrapping of tape or waxed paper. You don't really want the layers to be in direct contact, to avoid any possibility of shorts. The tangled mess mentioned above puts them in direct contact... Anyway, mine will be 21V at 10A eventually.

All of this is really easy to do, just rather tedious. Beats \$95 transformers.

See the ARRL Handbook for information on: transformer size, wire gauge choice, power supply design factors, etc.

-Tom R. N100Q randolph@est.enet.dec.com

Date: 19 Jul 1994 20:47:53 -0400
From: america.com!not-for-mail@uunet.uu.net
Subject: VHF/UHF Coax switches
To: ham-homebrew@ucsd.edu

I am looking for 6 VHF/UHF coax relays(not switches..sorry)

Date: 19 Jul 94 05:24:59 CST
From: ihnp4.ucsd.edu!swrinde!news.uh.edu!ccsvax.sfasu.edu!ccsvax.sfasu.edu!
f_speerjr@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <199407091130.EAA13852@ucsd.edu>,
<9407110930.aa16788@argos.ee.surrey.ac.uk>, <1994Jul17.142908.2163@arrl.org>
Subject : Re: RSGB BOOK

In article <1994Jul17.142908.2163@arrl.org>, zlau@arrl.org (Zack Lau (KH6CP))
writes:

> Gary Coffman KE4ZV (gary@ke4zv.atl.ga.us) wrote:

>

> : While I agree that the general literacy level in this country is
> : low, bad writing is not so much the technical innovator's fault
> : as it is the technical *editor's* fault. It's his job to work with
> : the author to put the manuscript into a coherent and literate form.

>

> But, what if there is *no* technical editor? One of the best places
> to find out about the latest innovative projects is conference
> proceedings, which don't have the lead times associated with
> editing.

> --

> Zack Lau KH6CP/1 2 way QRP WAS
> 8 States on 10 GHz
> Internet: zlau@arrl.org 10 grids on 2304 MHz

Can I butt in? This topic is very interesting to me, because I'm a research
scientist (psychology) as well as a textbook author, so I get to practice two
different kinds of writing.

Scientific writing, as we practice it in our journals, and as is found in most
conference proceedings, has as its objectives clarity, completeness, and
objectivity. As everyone knows, it tends to run to long, complex sentences,
passive voice, depersonalized construction, etc. Much of what I read in QST,
and many of our most popular books, like those by Doug DeMaw and Wes Hayward,
are written in some version or other of "science-ese." The disadvantages of

this kind of writing are that it is "flaccid," "lacks energy," and is just plain dull.

Good textbook writing is, in my opinion, harder. In addition to trying to be clear and complete, you also have to be interesting. That means, among other things, a lot of variation in sentence length, and a strong preference for the active voice. It is so EASY to write, "In this study, the children were presented with xyz stimuli, then required to do abc in response." It is so much less natural for a scientist, but so much more engaging, to write, "In this study, the children saw xyz, and responded with abc."

I guess it's true that a good editor could convert the one to the other, but I can tell you for sure, mine doesn't have time to do so. We talk from time to time about rhetorical strategies, but getting it right is on my nose, not his.

If I had to recommend one short book that has taught me more about writing than anything else I've ever read, it would be, Strunk and White's Elements of Style. (That's E.B. White, of Charlotte's Web fame.)

73!

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If RST>519
Then cut_power;

Jim Speer, K5YUT
f_speerjr@ccsvax.sfasu.edu

End of Ham-Homebrew Digest V94 #202
